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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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24945	7590	11/04/2004	EXAMINER	
STREETS & STEELE 13831 NORTHWEST FREEWAY SUITE 355 HOUSTON, TX 77040			QAZI, SABIHA NAIM	
			ART UNIT	PAPER NUMBER
			1616	

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/733,611

Applicant(s)

SINGH ET AL.

Examiner

Sabiha Qazi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 17, 26-38, 40-49 and 51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 17, 26-38, 40-49 and 51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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Non-Final Office Action

Claims 1-11, 17 and 26-51 are pending. No claim is allowed.

Acknowledgment is made of the Appeal Brief filed on September 9, 2004.

In order to further the prosecution, previous rejections are withdrawn. Eight new rejections have been added below.

Presently Claimed Invention

The instant invention is drawn to a method of preparing a sterilizing solution, comprising:

- (a) Storing dry solid material comprising one or more dicarboxylic acid; and
- (b) Dissolving the dry solid material into water as needed to prepare an aqueous sterilizing solution having a dicarboxylic acid concentration between about 0.1 weight percent and saturation.

Response to Appeal Brief

The Applicants' core argument is that the prior art of Lokkesmoe et al. and Huber did not suggest or disclose any information concerning sterilizing agents. The prior art teaches *disinfectants*, not sterilizing agents, so the Examiner cited the Merriam Webster Online Dictionary to show that disinfectants were similar, if not the same, as sterilizing agents. The Applicants' cited the same dictionary to show that they were not. Since this was going nowhere, the Examiner has decided to withdraw from this entire argument and cite prior art that suggests and discloses information concerning sterilizers.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11, 39, and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims are drawn to "disinfecting" solutions formed by the method of claim 1, 29, and 40, which are drawn to sterilizing solutions. Is there a difference between disinfectant and sterilizer? If so, claims 11, 39, and 50 are improperly dependent on these claims. If not, there should be no argument for the previous rejections.

A clarification is requested.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

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improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-7, 30-35, and 41-46 are directed to the same invention as that of claims 20-23 of commonly assigned MCKENZIE et al (2003)¹. The issue of priority under 35 U.S.C. 102(f) of this single invention must be resolved.

2. Claims 1-7, 30-35, and 41-46 are directed to the same invention as that of claims 11 and 15 of commonly assigned MCKENZIE et al (2002)². The issue of priority under 35 U.S.C. 102(f) of this single invention must be resolved.

Examiner notes that claims 11, 39, and 50 are drawn to "disinfectant solutions", which are composition claims.

¹ United States Patent No. 6342528 B1.

² United States Patent No. 6518304 B2.

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Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of

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paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(f) he did not himself invent the subject matter sought to be patented.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1-11, 17 and 26-51 are rejected under 35 U.S.C. 102(b) and 35 U.S.C. 102(f) as being anticipated by OAKES et al³ and PLOUMEN et al.⁴

Both references disclose dipercarboxylic acid compositions, which embrace the Applicant's claimed invention.

OAKES et al discloses peroxyacid antimicrobial concentrates for sanitizing surfaces, facilities, and equipment found in food manufacturing and food processing and food service industries, and typically hard non-porous surfaces in the health care industry. (See lines 10-15 in col. 1) Furthermore, OAKES et al teaches diperoxydicarboxylic acid aqueous compositions. See the entire document, especially the examples and claims (*especially* claim 2).

PLOUMEN et al discloses a process for the preparation of organic peroxyacid containing bleaching granules or powder. (See lines 45-47 in col. 2) Furthermore, PLOUMEN et al lists

³ United States Patent No. 5200189 A1.

⁴ United States Patent No. 5049298 A1.

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preferred diperoxy acids in lines 60-68 in col. 4 and 1-8 in col. 5. See the entire document, especially the examples, the claims, and Tables I and II.

Examiner notes that the Applicants' most recent arguments (in the Appeal Brief filed on September 9, 2004) attacked each reference individually. To prevent that from happening with OAKES et al & PLOUMEN et al, Examiner directs Applicants' attention to the cited case law: "One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references." In re Keller, 642 F.2d 413, 208 SPQ 871 (CCPA 1981); In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). See MPEP 2145.

Examiner notes that claims 11, 39, and 50 are drawn to "disinfectant solutions", which are composition claims.

2. Claims 1-11, 17 and 26-51 are rejected under 35 U.S.C. 102(e) and 35 U.S.C. 102(f) as being anticipated by MCKENZIE et al (2003). See claims 23-37.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Examiner notes that claims 11, 39, and 50 are drawn to "disinfectant solutions", which are composition claims.

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3. Claims 1-11, 17 and 26-51 are rejected under 35 U.S.C. 102(e) and 35 U.S.C. 102(f) as being anticipated by MCKENZIE et al (2002). See claims 11 and 15.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Examiner notes that claims 11, 39, and 50 are drawn to "disinfectant solutions", which are composition claims.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-11, 17 and 26-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over OAKES et al and PLOUMEN et al. Both references teach dipercarboxylic acid compositions, which embrace the Applicant's claimed invention. See the entire documents, especially the cited sections below.

OAKES et al teaches peroxyacid antimicrobial concentrates for sanitizing surfaces, facilities, and equipment found in food manufacturing and food processing and food service industries, and typically hard non-porous surfaces in the health care industry. (See lines 10-15 in

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col. 1) Furthermore, OAKES et al teaches diperoxydicarboxylic acid aqueous compositions. See the entire document, especially the examples and claims (*especially* claim 2).

PLOUMEN et al teaches a process for the preparation of organic peroxyacid containing bleaching granules or powder. (See lines 45-47 in col. 2) Furthermore, PLOUMEN et al lists preferred diperoxy acids in lines 60-68 in col. 4 and 1-8 in col. 5. See the entire document, especially the examples, the claims, and Tables I and II.

The instant invention differs from the prior art in that the presently claimed invention is using the dipercarboxylic acid in solid form and using it as a sterilant in aqueous form while the prior art teaches the same aqueous composition for use as peroxyacid antimicrobial concentrates for sanitizing surfaces, facilities, and equipment found in food manufacturing and food processing and food service industries, and typically hard non-porous surfaces in the health care industry (OAKES et al). The prior art teaches the solid form of peroxyacids in the form of granules or powder (PLOUMEN et al).

2. Claims 1-11, 17 and 26-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over LAGNEMO et al⁵. The prior art teaches a bleaching agent of Formula I, which is a dipercarboxylic acid. This bleaching agent is stable during storage. It gives a satisfying yield of percarboxylic acids in aqueous solutions and can be used without or with less supply of hydrogen peroxide than bleaching agents presently available. The agent should have capability to generate percarboxylic acids with a suitable rate to achieve a constant concentration during a whole washing cycle, and be compatible with other components in a detergent. Finally, it is desirable that it is harmless and inexpensive. In order to stabilize against decomposition

⁵ United States Patent No. 5415668, filed on November 6, 1992.

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catalyzed by metal cations, such as Cu.sup.2+, Mn.sup.2+ or Fe.sup.3+, the composition may also may contain small amounts of sequestering agents, such as EDTA, NTA, dipicolinic acid, or phosphonates, for example Dequest 2010.RTM., Dequest 2016.RTM.or Dequest 2040.RTM., preferably in amounts from 0.1 to 1% by weight, and optionally in combination with magnesium silicate. Compositions according to the prior art are useful for all kinds of bleaching in alkaline environment, in which bleaching means oxidative decomposition of chromophoric systems, which regarding peracids probably is due to the oxidation of conjugated double bonds. The composition is specifically advantageous at bleaching in combination with cleaning, especially at washing of textiles, in which case a good bleaching effect is obtained at such low temperatures as 20 degrees Celsius. See the entire document, especially lines 45-62 in col. 1, lines 25-32 in col. 7, lines 52-60 in col. 7, and lines 7-17 in col. 9.

Instant claims differ from the reference in generating dipercarboxylic acids by using the compounds of Formula I, cited below.



Formula I

In the instant invention, Applicants are using dipercarboxylic acids for the preparation of the composition. All ingredients of the compositions as presently claimed are taught by the prior art.

The complete composition is given in the Table in lines 7-17 in col. 9. A copy of this table is cited below:

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diacylated dipercarboxylic acids	1-10
perborate	5-15
anionic surfactants	5-20
nonionic surfactants	2-11
soaps	0,1-4
sequestering agents	0,1-1
fillers	16-50
zeolines	10-45
polycarboxylates	3-5
sodium carbonate	5-15

Table in Lines 7-17 of Column 9

It would have been obvious to one skilled in the art at the time of invention to prepare additional beneficial compositions in solid or aqueous form because the prior art teaches it for the reasons cited above.

Examiner notes that .1 weight percent is used in claim 1. Even if OAKES et al did not teach or suggest this, it has been established by the courts merely selecting proportions and ranges is not patentable absent a showing of criticality. In re Becket, 33 U.S.P.Q. 33 (C.C.P.A. 1937). In re Russell, 439 F.2d 1228, 169 U.S.P.Q. 426 (C.C.P.A. 1971).

Normally, change in temperature, concentration, or both, is not a patentable modification; however, such changes may impart patentability to a process if the ranges claimed produce a new and unexpected result which is different in kind and not merely in degree from results of prior art; such ranges are termed "critical" ranges, and applicant has burden of proving such criticality; even though applicant's modification results in great improvement and utility over prior art, it may still not be patentable if the modification was within the capabilities of one skilled in the art; more particularly, where the general conditions of the claim are disclosed in the prior art, it is not inventive to discover optimum or workable ranges by routine experimentation. In re Aller et al. 105 USPQ 233.

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Furthermore, it has been established by the courts that a reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill might reasonably infer from the teachings. *In re opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA 1976). A reference is not limited to working examples. *In re Fracalossi* 215 USPQ 569 (CCPA 1982).

Accordingly, the burden of proof is upon applicants to show that instantly claimed subject matter is different and unobvious over those taught by prior art. See *In re Brown*, 173 USPQ 685, 688; *In re Best*, 195 USPQ 430 and *In re Marosi*, 218 USPQ 289, 293.

In the light of the forgoing discussion, the Examiner's ultimate legal conclusion is that the subject matter defined by the instant claims would have been obvious within the meaning of 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sabiha Qazi whose telephone number is (571) 272-0622. The examiner can normally be reached on any business day.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz can be reached on (571) 272-0887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SABIHA QAZI, PH.D
PRIMARY EXAMINER

Saturday, October 30, 2004